## **Executive Summary**

In 1991, the U.S. Department of Agriculture (USDA), Agricultural Marketing Service (AMS) was charged with designing and implementing the Pesticide Data Program (PDP) to collect data on pesticide residues in food. PDP provides high-quality data on residues in food, particularly foods most likely consumed by infants and children. This 19th Pesticide Data Program Summary presents results for samples collected in 2009.

This information is provided to the U.S. Environmental Protection Agency (EPA). Before a company can sell or distribute any pesticide in the United States of America, EPA must review studies on the pesticide to determine that it will not pose unreasonable risks to human health or the environment. Once EPA has made that determination, it will license or register that pesticide for use in strict accordance with label directions

Before allowing a pesticide to be used on a food commodity, EPA sets limits on how much of a pesticide may be used on food during growing and processing, and how much can remain on the food you buy. Government inspectors monitor food in interstate commerce to ensure that these limits are not exceeded. EPA also sets standards to protect workers from exposure to pesticides on the job.

AMS, through its Monitoring Programs Office (MPO), is responsible for the administration, planning and coordination of day-to-day PDP operations. MPO meets regularly with EPA and other government agencies to establish program priorities and direction. Sampling and/or testing program operations are carried out with the support of 12 States: California, Colorado, Florida, Maryland, Michigan, Minnesota, Montana, New York, Ohio, Texas, Washington, and Wisconsin. These States have a prominent role in program planning and policy setting, particularly policies relating to quality assurance.

In 2009, program support for sampling of beef also was provided by USDA's Food Safety and Inspection Service. Sampling and testing of drinking water was conducted with personnel from various public

utilities. State health technicians and homeowners provided sampling for groundwater. Testing also was conducted by USDA's AMS National Science Laboratory, USDA's Grain Inspection, Packers and Stockyards Administration Laboratory, and EPA's Analytical Chemistry Laboratory.

PDP commodity sampling is based on a rigorous statistical design that ensures the data are reliable for use in exposure assessments and can be used to draw various conclusions about the Nation's food supply. The pesticides and commodities to be included each year in the sampling are selected based on EPA data needs and take into account the types and amounts of food consumed by infants and children. The number of samples collected by the States is apportioned according to that State's population. Samples are randomly chosen close to the time and point of consumption (i.e., distribution centers rather than at farm gate) and reflect what is typically available to the consumer throughout the year. Samples are selected without regard to country of origin, variety, or organic labeling. The monthly sampling rate is 62 samples per commodity, except for highly seasonal commodities. For seasonal commodities, sampling rates are adjusted to reflect market availability. Sampling rates for beef are based on production.

Fresh and processed fruit and vegetables accounted for 81.5 percent of the total samples collected in 2009. Other samples collected included water samples, 6.7 percent; beef, 4.4 percent; catfish, 4.1 percent; and rice, 3.3 percent; fresh and processed fruit and vegetables tested include: apples, asparagus, canned beans, cilantro, cucumbers, grapes, green onions, lettuce (organic), oranges, pears, potatoes, spinach, strawberries, sweet corn (fresh on-the-cob/frozen), sweet potatoes and tomato paste. Approximately 79 percent of samples were from U.S. sources, 20 percent were imports and 1 percent was of mixed or of unknown origin.

Because PDP data are mainly used for risk assessments, PDP laboratory methods are geared to detect the smallest possible levels of pesticide residues, even when those levels are well below

the safety margins (tolerances) established by EPA. Prior to testing, PDP analysts washed samples for 10 seconds with gently running cold water as a consumer would do; no chemicals, soap or any special wash was used. Results for more than 1.8 million analyses were reported by the laboratories in 2009, too numerous to be included in their entirety in this summary. The PDP database file for 2009, and annual summaries and database files for previous years, are available on the PDP Web site at http://www.ams.usda.gov/pdp or by contacting MPO.

PDP is a voluntary program and is not designed for enforcement of tolerances. However, PDP informs the U.S. Food and Drug Administration if residues detected exceed the EPA tolerance or have no EPA tolerance established. In 2009, residues exceeding the established tolerance were detected in 0.3 percent of the samples tested, and residues with no established tolerance were found in 2.7 percent of the samples. Appendices B through G provide a distribution of residues by pesticide for the commodities tested. More information on results is provided in the Sample Results and Discussion section of the summary.

PDP laboratories also test foods for low levels of environmental contaminants that are no longer used in the U.S., but due to their persistence in the environment, particularly in soil, can be taken up by plants. PDP tracks these contaminants and provides the data to the Codex Alimentarius Commission.

In 2009, 612 (treated and untreated) drinking water samples were collected at water treatment facilities in 11 States and 278 groundwater samples were collected at farm wells, school/daycare facilities and private residence wells located in 16 States. Low levels of detectable residues, measured in parts per trillion, were detected in both drinking water and groundwater. The majority of pesticides, metabolites, and isomers included in the PDP testing profiles were not detected. None of the detections in the finished water samples exceeded established EPA Maximum Contaminant Levels, Health Advisory levels, or established Freshwater Aquatic Organism criteria.

PDP continually strives to improve methods for collection, testing, and reporting data. These data are freely available to EPA and other Federal and State agencies charged with regulating and setting policies on the use of pesticides and to all stakeholders by hard copy, Internet, or custom reports generated by MPO. Additional copies of the PDP Annual Summary may be obtained by calling MPO at (703) 330-2300 or by mailing the form provided at the end of the Summary.